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BEYER WEAVER & THOMAS LLP
P.O. BOX 778
BERKELEY, CA 94704-0778

EXAMINER
NGUYEN, TAM V

ART UNIT	PAPER NUMBER
2172	6

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,143	CRIM ET AL.	
	Examiner	Art Unit	
	Tam V Nguyen	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☑ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-34 are pending in this office action. Claims 1-32 and the added of claims 33-34 are presented for examination.

Information Disclosure Statement

2. The reference cited in the IDS, PTO-1449, Paper NO. 4, have been considered.

Response to Arguments

3. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-10 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable Hirsh (US 6263339B1) in view of Kobayashi et al. (US 6275825B1).

With respect to claims 1 and 28, Hirshch discloses Implementations of the editor includes one or more of the following. An attribute window is associated with each of

the graphical data elements. The attribute window is used to edit properties associated with a computer-implemented object having an object state and one or more interfaces providing access to the object state through a plurality of attributes, each of the attributes defined as a functional expression and reference able at run-time as a data value. The functional expression includes one or more of the following: a function; an operator; a database column name; a variable; and a constant. The attribute may be a static data value. The functional expression may be parsed to generate a function, which is stored as a run-time value. The function may be cloned and stored as a design time value if the function is a constant. Further, an error message may be displayed if the expression is invalid, (col. 2, lines 33-49) as step of ***defining at least one expression associated with at least one record of said database.*** Within the block 360, two functions are further specified. Traversing down the left branch of the tree, a VcSftnConcatenate function 362 is designated. VcSftnConcatenate 362 is responsible for evaluating the expression (first_name+" ") using its two member string functions, m_ftn1 and m_ftn2. Within the block 362 are two additional functions, a VcSftnLookup function 364, a string function responsible for looking up the current value of the identifier stored in m_ref ("first_name"), and a VcSftnConstant function 370, a string function responsible for storing a constant string value, (col. 14, lines 57-67) as step of ***evaluating said at least one expression for said at least one record.***

Hirsch discloses in runtime mode, a viewpoints dialog box may be provided for navigating a world. Scenes allowing direct access may be displayed in the Scenes combobox. The viewpoints for the selected scene may be displayed in the Viewpoints

listbox, (col. 10, lines 55-59). However, Hirsch does not explicitly teach ***allowing access to said at least one record based on said evaluating of said at least one expression.*** Kobayashi discloses the item access right group information is displayed as the column caption of the table, while the record access right group information is displayed as the column caption of the table. A record access condition is written at an intersection of a matrix consisting of the row and column captions (step C6). In this case, each intersection area is divided into two parts so as to allow to set two different record access conditions. Each record access condition is described using a logic expression obtained by connecting a data item name to a condition value using a comparison operator (<, .ltoreq., =, .gtoreq., .noteq.). When a condition value is omitted, the condition value is given by the value unique to the user himself. That is, "department=" indicates that the user belongs to the same department. When a plurality of record access conditions are set in each intersection area, an AND condition is set in this area. For example, an intersection area "C1" (personnel staff, personnel department) having the item access right group code "C" and a record access right group code "1" indicates that the "user belongs to the same office location" but the "user is different from a person to be accessed (different employee No.)". Note that no record access condition is set in a meaningless area such as C2 (personnel staff, general affairs department). Record access conditions are described in intersection areas by sequentially updating the row and column points. When the table is completely filled, the set contents are transferred to and stored and managed in the record access right management file RMF (step C7), (col. 7, lines 35-62) as step of

allowing access to said at least one record based on said evaluating of said at least one expression. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hirsch with the teaching of Kobayashi. By doing so, the system can maintains security in an open environment, (col. 1, lines 45-47).

As to claim 2, Hirsch further discloses a method as recited in claim 1, wherein said at least one expression is a calculation expression that can be evaluated at least partly based on a value of at least one field of said at least one record, (col. 17, lines 44-64).

As to claim 3, Hirshch further discloses a method as recited in claim 1, wherein said at least one expression is a calculation expression that can be evaluated at least partly based on at least one state variable of said database, (col. 17, lines 44-64).

As to claims 4 and 29, Hirshch further discloses a method as recited in claim 1, wherein said at least one expression can be defined based on fields and state variables of said database, and wherein said evaluating operates to return only one of two possible values, one of said possible values indicating that access to said at least one record should be granted, and the other one of said possible values indicating that access to said at least one record should be denied, (col. 2, lines 34-49).

As to claim 5, Hirsch further discloses wherein said evaluation is performed only when request to access said at least at one record has been received, (col. 2, lines 34-39).

As to claim 6, Hirshch further discloses a method as recited in claim 1, wherein said defining of said at least one expression defines access privileges for a user of said database with respect to accessing one or more records of said database, (col. 2, lines 34-49).

As to claim 7, Hirshch further discloses a method as recited in claim 1, wherein said defining of said at least one expression operates to define access privileges for a user of said database with respect to at least one operation that can be performed on one or more records of said database, (col. 2, lines 34-49).

As to claims 8 and 30, Hirshch further discloses a method as recited in claim 1, wherein said defining of said expression defines access privileges for at least one user of said database with respect to access to one or more records in said database, (col. 3, lines 18-34), and wherein said defining of said expression operates to define access privileges with respect to at least one operation that may be requested to be performed by said at least one user on one or more records of said database, (col. 3, lines 18-34).

As to claims 9 and 31, Hirsch further discloses the functional expression includes one or more of the following: a function; an operator; a database column name; a

variable; and a constant. However, Hirsch does not teach ***at least one user is assigned a password that is associated with said expression.*** Kobayashi teaches the user access right management file UMF stores and manages "login ID", "item access right group code", and "record access right group code" in units of users, (col. 5, lines 24-27). When an arbitrary login ID and password are input in accessing the employee information file, the application execution control refers to the user DB access right file UAF to determine a user group to which the user belong, (col. 5, lines 52-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the teachings of Hirsch with the teaching of Kobayashi. By doing so, the system can maintains security in an open environment, (col. 1, lines 45-47).

As to claim 10, Hirshch further discloses wherein access to said at least one record can be for browsing, editing, or deleting of said at least one record, (col. 7, lines 7-19).

6. Claims11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ananda (US 6385731B2) in view of Schaefer et al. (US 5826268).

With respect to claim 11, Ananda discloses a method of controlling access to records stored in a database, said method comprising: identifying a password that is associated with one or more users of said database, (col. 3, lines 19-34); receiving a

request to perform said at least one operation on one or more records of said database, said request being identified as a request made by said one or more users associated with said password, (col. 3, lines 19-34); evaluating said calculation expression when said request has been received, (col. 3, lines 19-34); said evaluation returning only one of two possible values, one of said to possible values indicating that said at least one operation should be granted and another one of said possible values indicating that said at least one operation should be denied, (col. 3, lines 19-34); granting said at least one operation to be performed when said evaluation returns one said possible value to Indicate that said at least one operation should be granted, (col. 3, lines 19-34) ; and denying said at least one operation to be performed when said evaluation returns one said another possible value to indicate that said at least one operation should be denied, (col. 3, lines 19-34).

Ananda does not clearly disclose "defining a calculation expression for said identified password, said calculation expression defining access privileges of said one or more users with respect to at least one operation that may be requested to be performed by said one or more users on one or more records of said database."

However, Schaefer shows the record on "James Bond" may be visible at level U, and at level U we can see a set of "MI-6 employee". However, the fact the Bond works for MI-6 is a member of the employee set, should be visible only at level S or above. The fact that Bond is infiltrating may be classified T so that the Bond record appears in both set. Such invisible super types help to preserve data confidential, (col. 10, lines 3-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Ananda with the teaching of Schaefer because many databases containing sensitive data are likely to be accessible through a computer network or internet work, thereby exposing those databases to entities which may attempt to comprise the confidential of the sensitive data.

As to claim 12, Anna further discloses wherein said at least one operation can be a browse, and edit, or a delete operation, (col. 28, lines 8-18)

As to claim 13, Ananda further discloses wherein said calculation expression is not explicitly defined for said at least one operation but said calculation expression is one that has been defined for another operation which has been considered as a related operation to said at least one operation, (col. 3, lines 19-34).

As to claim 14, Ananda further discloses a method as recited in claim 11, wherein said calculation expression can be evaluated at least partly based on a value of at least one field of said at least one record, and wherein said calculation expression can be evaluated at least partly based on at least one state variable of said database, (col. 3, lines 19-34).

As to claim 15, Ananda does not teach "a method as recited in claim 14, wherein said method further comprises: granting temporary or limited access to said at least one record to allow said evaluating of said calculation expression."

However, Schaefer shows the record on "James Bond" may be visible at level U, and at level U we can see a set of "MI-6 employee". However, the fact the Bond works for MI-6 is a member of the employee set, should be visible only at level S or above. The fact that Bond is infiltrating may be classified T so that the Bond record appears in both set. Such invisible super types help to preserve data confidential, (col. 10, lines 3-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Ananda with the teaching of Schaefer because password protection and access lists of user having permission to access a particular piece of data my be employed to prevent unauthorized retrieval of the sensitive data.

7. Claim 16-27 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leong (US 6434552B1) in view of Couch et al. (US 6493700B2).

With respect to claims 16 and 33, the applications 208, 210 and 212 maintain their respective information in data stores such as files (not shown) or databases 214, 216 and 218 that reside in a readable and writ able portion 220 of the memory 106. Each related group of data, for example, a name, an address and a telephone number,

is stored in a database as a record. The individual pieces of information in the record, that is, the name, address and telephone number are known as fields. A database contains many instances of each record type. It is important to distinguish between a type and an instance of both a record and a field. For example, an instance of a contacts record type in the contacts database 218 consists of an instance of each of the following field types: name, address, telephone number and email address. As a further example, the name "John Smith" is an instance of the name field type. It is a common practice to drop the qualifiers "type" and "instance" (for both records and fields), and to rely on context to indicate which of the two is meant. The description that follows adopts this common practice, (col. 4, lines 44-67) as step of ***a database having one or more records stored therein***. If the Continue Find button 612 is activated, the operation follows the path of an arrow 312 in FIG. 3 to a RESULT state 306. The sequence also proceeds to a SEARCH DATABASES step 412. In this step, the application searches each of the marked databases in the Confirmation GUI screen 600 for records meeting the other search conditions. In a database such as the Contacts database, a record is deemed to meet the other search conditions if it contains the search text. Such a record does not contain any time information and the date conditions are therefore of no relevance when retrieving records in that database. However in another database such as the Calendar database, a record is deemed to have met the other search conditions if it contains the search text and has a date which falls between the From and To dates of the search conditions, (col. 7, lines 37-52).

Leong discloses the screen 800 allows a user to access all the fields of the particular record. One way to allow access to the record is for the search application 213 to be given read and write permissions to the databases so that a user can access the databases using the search application directly. Another way is for the search application to invoke the appropriate application and for the user to use the appropriate application to subsequently access the databases, (col. 7, lines 42-49). However, Leong does not explicitly teach ***wherein said Graphical User Interface operates to facilitate defining access privileges with respect to said one or more records stored in said database.*** Couch teaches under the present invention, the explain table qualifier designation module 100, preferably in conjunction with the GUI 66, allows the user to designate any explain table 51 that the user wishes to reference, so long as the user has the required privileges. Once the user selects a desired qualifier 102 corresponding to is a selected explain table 51, a privilege module 106 preferably makes the determination whether or not the user has the required privileges to access the selected explain tables 51. In the depicted embodiment, the qualifier module is shown as a component of the explain table qualifier designation module 100, and while the qualifier module 102 is preferably linked thereto, it does not have to be part of the explain table qualifier designation module 100, (col. 9, lines 52-65) as step of ***wherein said Graphical User Interface operates to facilitate defining access privileges with respect to said one or more records stored in said database***. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Leong with the teaching of Couch. By doing so, the

relational database management system minimizes the computer time and resource (i.e. cost) for executing the query, (col. 1, lines 56-58).

As to claim 17, Leong further discloses a database system as recited in claim 16, wherein said Graphical User Interface operates to provide the ability for a user of said database to define an expression associated with at least one operation that may be requested to be performed by another user of said database on said one or more records stored in said database, (col. 8, lines 32-49).

As to claim 18, Leong further discloses a database system as recited in claim 16, wherein said Graphical User Interface operates to provide the ability for a user to define said expression without requiring said user to write a programming script, (col. 8, lines 32-49).

As to claim 19, Leong further discloses the screen 800 allows a user to access all the fields of the particular record. One way to allow access to the record is for the search application 213 to be given read and write permissions to the databases so that a user can access the databases using the search application directly. Another way is for the search application to invoke the appropriate application and for the user to use the appropriate application to subsequently access the databases, (col. 7, lines 42-49). However, Leong does not explicitly teach ***wherein said Graphical User Interface provides a window that allows a user to interact with said Graphical User***

Interface to identify a password for which access privileges may be define or re-defined. Couch teaches under the present invention, the explain table qualifier designation module 100, preferably in conjunction with the GUI 66, allows the user to designate any explain table 51 that the user wishes to reference, so long as the user has the required privileges. Once the user selects a desired qualifier 102 corresponding to is a selected explain table 51, a privilege module 106 preferably makes the determination whether or not the user has the required privileges to access the selected explain tables 51. In the depicted embodiment, the qualifier module is shown as a component of the explain table qualifier designation module 100, and while the qualifier module 102 is preferably linked thereto, it does not have to be part of the explain table qualifier designation module 100, (col. 9, lines 52-65) as step of ***wherein said Graphical User Interface provides a window that allows a user to interact with said Graphical User Interface to identify a password for which access privileges may be define or re-defined.*** Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Leong with the teaching of Couch. By doing so, the relational database management system minimizes the computer time and resource (i.e. cost) for executing the query, (col. 1, lines 56-58).

As to claim 20, Couch further discloses a database system as recited in claim 19, wherein said Graphical User Interface further provides a window that allows a user to specify a calculation expression which defines access privileges with respect to at least

one operation that may be requested to be performed on said one or more records, (col. 9, lines 52-65).

As to claims 21 and 26, Leong further discloses a database system as recited in claim 20, wherein said at least one operation can be a browse, edit, or a delete operation, (col. 9, lines 10-35).

As to claim 22, Leong further discloses a database system as recited in claim 20, wherein said calculation expression can be evaluated at least partly based on a value in at least one field of said one or more records of said database, and wherein said calculation expression can be evaluated at least partly based on at least one state variable of said database, (col. 9, lines 10-35).

As to claim 23, Leong further discloses a database system as recited in claim 16, wherein said database program operates to determine whether access to at least one of said one or more records should be granted or denied, (col. 8, lines 33-49).

As to claim 24, Leong further discloses a database system as recited in claim 23, wherein said determining of whether access to said at least one record should be granted or denied is performed by evaluating a calculation expression for said at least one of said one record, (col. 9, lines 10-35).

As to claim 25, Leong further discloses a database system as recited in claim 24, wherein access to said at least one record is granted only when said determining determines that access should be granted, and wherein access to said at least one record is denied when said determining determines that access should be denied for said record, (col. 8, lines 33-49).

As to claim 27, Leong further discloses a database system as recited in claim 24, wherein said database system further comprises a cache, and wherein said cache operates to store an evaluated result of at least one calculation expression, (col. 9, lines 10-35).

As to claim 34, Leong further discloses said Graphical User Interface further operates to evaluate said expression in order to determine whether access to said at least one record should be granted, (col. 8, lines 33-49).

Contact Information

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam V Nguyen whose telephone number is (703) 305-3735. The examiner can normally be reached on 7:30AM-5: 00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Yen Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for formal communications and (703) 746-7240 for informal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia 22202. Fourth Floor (Receptionist).

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

TV:tv

06/12/02

SHAHID AL ALAM
PATENT EXAMINER